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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,794	01/03/2002	Duane V. Byerly	790063.00007	8537

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679


DATE MAILED: 04/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/033,794	Applicant(s) Byerly et al
Examiner Greg Binda	Art Unit 3679



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 8, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above, claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jan 3, 2002 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other: _____

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Election/Restriction

1. Claims 9 & 10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election of a flexible shaft, Group I, was made without traverse in Paper No. 5.

Drawings

2. The drawings are objected to because:
 - a. The drawings fail to show an assembly like that recited in claim 2. The figures, particularly Fig. 5, show all (i.e. not half) of the bolts 16 on the flange 17.
 - b. The drawings fail to show an assembly like that recited in claim 8. Fig. 2 shows the washers 14 flush with (i.e. not protruding from) the parallel faces of the body 11.
 - c. Inappropriate cross hatching patterns are used for the composite material (see page 4, line 29 and page 5, lines 19 & 20) of the body 11 and the links 13, and the metal material (page 2, line 30) of washers 14. See MPEP 608.02 for the appropriate patterns.
3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Specification

4. The title of the invention is objected to because it includes the word “improved”. See MPEP 606.
5. The specification is objected to as failing to comply with 37 CFR 1.71 and 1.75(d)(1) because the detailed description fails to provide proper antecedent basis for the subject matter of claim 6.

Claim Objections

6. The claims are objected to as failing to comply with 37 CFR 1.75(i) because elements of the claims are not separated by line indentation.
7. Claims 1, 2, 7 & 8 are objected to because:
 - a. Claim 1, lines 8 & 9 and claim 7, lines last recite the limitation, “said first-mentioned bore” begging the question - first mentioned where?
 - b. Claim 2, line 1 recites the limitation, “The assembly”. There does not appear to be antecedent basis for this limitation.
 - c. Claim 2 recites that each of the annular flanges 17 & 19 is formed with holes numbering “at least half the number” of fastener means 12 and “half of the bolts [16]”. However,

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the specification discloses in the second paragraph on page 4 that the number of holes 21 & 22 and bolts 16 in each of the flanges 17 & 19 is equal to the total number of fastener means 12.

d. Claim 8 recites the limitation "proud" but it is not clear that that was the intended recitation. See also the specification, page 3, line 5.

Claim Rejections - 35 U.S.C. § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 7 & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Andra et al, WO 99/15803 (Andra).

a. Claim 1. Figs. 1 & 2 show a flexible coupling comprising: an annular body 10 of moldable material 20; an even number of parallel bores (indicated by numeral 16 in Fig. 2); a plurality of link means 12; and a washer means 18, 18' on opposite sides of each link means 12 defining end orifices. Figs. 2, 3, 5 & 7 show that each washer 18, 18' has a peripheral formation 24, 28, 28' such that when the body 10 is molded to incorporate fastener means and link means so that each washer is locked by the molded material 20 (see also the first full paragraph of page 2 of the English language translation).

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b. Claim 2. Andra discloses that the flexible coupling is used in a cardanic connection for shafts (see U. S. Equivalent US 6,315,670, col. 1, lines 19 & 20). Such a connection includes all the limitations of claim 2. (See the cardanic connection in US 6,176,784)

c. Claim 3. Figs. 5 & 7 shows that the peripheral formation comprises a peripheral groove 24, 24' (see also page 2, line 28 of the English language translation) in each of the washer means.

d. Claim 7. Fig. 2 shows that the links 12 are made from composite material and are in stacked relationship.

e. Claim 8. Fig. 2 shows the body 10 has parallel faces and its moldable material 20 surrounds the washers 18, 18'. Fig. 2 also shows the washers 18, 18' protruding from the faces of the body 10 to the same extent that applicant's Fig. 2 shows washers 14 protruding (proud?) from the faces of body 1.

10. Claims 1, 7 & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 197 42 359.

a. Claim 1. Figs. 1-3 show a flexible coupling comprising: an annular body 10 of moldable material 20; an even number of parallel bores (indicated by numeral 16 in Fig. 2); a plurality of link means 12, 12'; and a washer means 18, 18' on opposite sides of each link means 12 defining end orifices. Fig. 3 shows that each washer 18, 18' has a peripheral formation 22 such

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that when the body 10 is molded to incorporate fastener means and link means so that each washer is locked by the molded material.

b. Claim 7. Fig. 2 shows that the links 12, 12' are made from composite material and are in stacked relationship.

c. Claim 8. Fig. 2 shows the body 10 has parallel faces and its moldable material 20 surrounds the washers 18, 18'. Fig. 2 also shows the washers 18, 18' protruding from the faces of the body 10 to the same extent that applicant's Fig. 2 shows washers 14 protruding (proud?) From the faces of body 1.

Claim Rejections - 35 U.S.C. § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andra.

a. Claims 4 & 5. Andra discloses that the annular body 10 is made from a moldable material 20 but does not expressly disclose that the moldable material is a urethane polymer. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the annular body 10 from a urethane polymer since it has been held

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to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

b. Claim 6. Andra discloses washer means 18, 18' but does not expressly disclose the washer means being made from metal. However, it would have been obvious to make the washer means from metal for the same reason noted in subparagraph 'a' above.

13. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 197 42 359 for the same reason noted in item 12 above.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McGuire et al discloses in col. 8, line 20 that a urethane polymer is a suitable material for the body of a flexible coupling. FR 2 313 595 discloses that metal is a suitable material for the washer means of a flexible coupling. Minoda et al teaches in col. 3, lines 7-10 making a peripheral groove in a metal washer in order to lock the washer within a body of moldable material. Takei, Byerly et al and Reichenbach each show a flexible coupling.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can

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normally be reached Monday through Thursday from 9:30 am to 7:00 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne, can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 (before final), (703) 872-9327 (after final) and (703) 872-9325 (customer service).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.


GREGORY J. BINDA
PRIMARY EXAMINER

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.